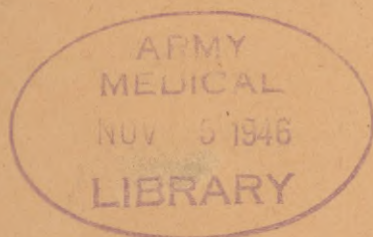


JAPANESE MEDICAL MATERIAL

SEXMAIN

(Extract of Whale Testis, Parenteral and Oral)



297202

REPORT NO. 244

JAN 22 1947

18 July 1946

MEDICAL ANALYSIS SECTION  
5250th Technical Intelligence Company  
APO 500



18 July 1946

SEXMAIN

(Extract of Whale Testis, Parenteral and Oral)

SOURCE: Tokyo, Japan.

IMPORTANCE: Not previously reported. An androgenic hormone extracted from the testicles of whales and intended for parenteral or oral use. No identical product from a whale source is listed in available standard American references.

DESCRIPTION: Astraw-colored clear oily liquid (0.5 cc.) is enclosed in a colorless glass ampul, packaged fifty per cardboard box.

SUMMARY OF GENERAL INFORMATION: Sexmain is prepared from an extract of whale testis and is available in both tablet and ampul forms.

Each tablet is standardized at 5 pigeon units (Laqueur's method) and corresponds to the following formula:

Extract of whale testis	- 66.7	mg.
Methyl testosterone (synthetic)	- 0.123	mg.
Mizuhonin powder (vitamin B complex extract)	- 83.2	mg.
Talc	- 20.0	mg.

Packages contain 30, 100 or 500 tablets. The methyl testosterone is synthesized from cholesterol by oxidation and the reaction completed using Grignard's reagent prepared from methyl iodide. Dosage ranges between 3 and 6 tablets per day.

The ampuls are packaged in units of 5, 10 or 50, each ampul containing 0.5 cc. of a Mazola oil solution of the whale



testicular extract and standardized at 15 pigeon units (Laqueur's method) per ampul. Dosage consists of the contents of one ampul injected intramuscularly or subcutaneously daily or on alternate days.

A translation of the literature enclosed with the product is part of this report and includes its ingredients, experimental results, indications, directions and dosage, packaging and manufacturer. Additional information on the method of manufacture has also been translated and embodied in this report.

No information is available on the chemistry of the androgenic substance extracted from whale testis. Results of comparative tests between this substance and those natural hormones (androsterone, testosterone and dehydro-iso-androsterone) commonly extracted in the U.S.A. from male urine or bull testis are not furnished. While the use of whale testicles for androgenic preparations represents an attempt to utilize the natural resources available to Japan, the source for such products is novel insofar as available references are concerned.

PHOTOGRAPHS:

Figure 1 - Closed package of Sexmain

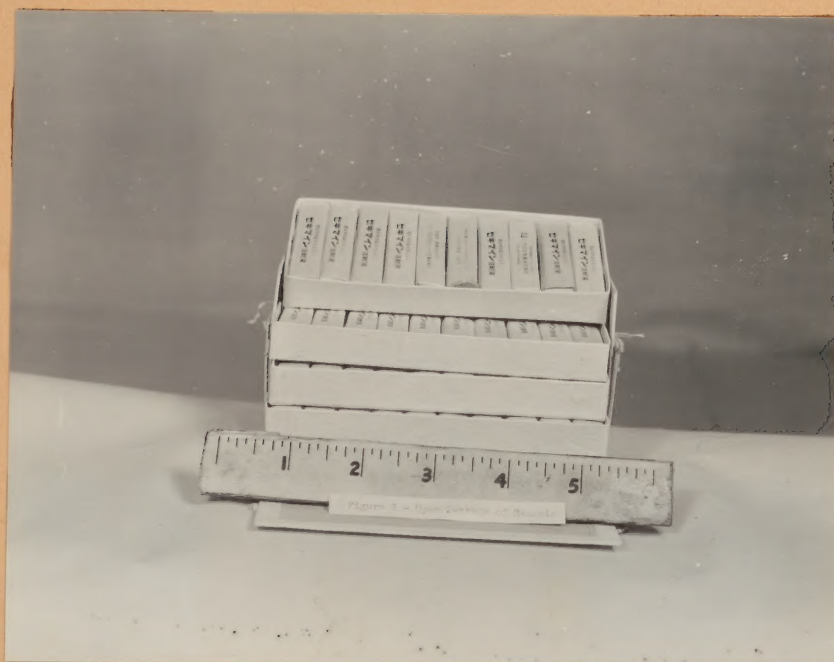
Figure 2 - Open package of Sexmain

Figure 3 - Sexmain literature

Figure 4 - Additional literature obtained from Dr. S. Sugasawa

Figure 5 - Additional literature obtained from Dr. S. Sugasawa





# セキマイン SEXMAIN

(鯨睾丸製劑)

## 成分

本劑は、最も旺盛なる活動力と絶倫なる精力とを有する水棲哺乳動物「鯨」の雄性生殖腺を原料とし、男性性徴を整ふる所謂ホルモンを最も多量に抽出し得る特殊の方法を以て、之より精製したる總有效成分にして、各製品毎に嚴密なる生物學的實驗により常にその力價を一定せしめたるものなり。

注射劑は油溶液にして一管はラクトール氏法に従ひ一五鵝冠單位を保有し、錠劑一錠は五鵝冠單位を保有す。且本錠劑には更に當社獨特の方法により製したる強力ビタミンB劑を配し効果を補強す。

## 實驗的效果

- (イ) 雄鵝を去勢するにその鵝冠は漸次褪色縮小するも、この時「セキマイン」を注射すれば短時間に鵝冠は完全に肥大し紅潮して去勢前に優る大さとなり、眼光は輝き羽毛は光澤を増し、鵝鳴、闘争性、交尾慾を生ぜしめ完全なる性徴の形成又は恢復を來すに至る。
- (ロ) 「マウス」、家兎、犬等にては去勢によつて惹起されたる精囊の萎縮を恢復増強し又去勢症候を防止す。尙幼若動物に於ては性徴形成を著しく促進し性の早熟を來す。
- (ハ) 老衰動物に使用すれば、元氣を恢復し、食欲を増進し、その體重及び運動量を増加し、消失せる交尾慾を再起せしめ、老衰現象を恢復して「若返り」現象を呈す。

## 適應症

- 一、生殖器神經衰弱諸症  
勃起力減退、早洩、性慾缺乏、快感減退、遺精、攝護腺漏、精液漏
- 二、男子更年期諸症  
頭痛、倦怠、視力減退、聽力減退、精力減退、肩凝、腰痛、四肢冷感、初老憂鬱病
- 三、男子一般老衰現象の豫防恢復
- 四、睾丸缺落諸症  
先天性睾丸發育不全即ち類宦官症、睾丸摘出後の身體並に精神障礙
- 五、男子脂肪過多症
- 六、男子疲勞一般

## 使用法及び用量

注射劑は毎日又は隔日に一管を筋肉内又は皮下に注射す。  
錠劑は一日三錠乃至六錠を服用すべし。同時に注射劑を併用すれば作用一層顯著なり。  
尙注射を反覆するに當り常に注射部位を變更し且比較的深部に行ふを可とす。

## 包装

注射液	〇、五cc	五管入	一〇管入	五〇管入
錠劑	三〇錠入	一〇〇錠入	五〇〇錠入	

大阪市東區道修町三丁目二十五番地

發售元

Ⓟ 大日本製藥株式會社

支店 東京市日本橋區本町二丁目

支店 奉天市大和區道修町三九番地

出張所 臺北市榮町三丁目

出張所 札幌市南三條西八丁目



# Sexmain

錠剤 3-6錠分3  
注 毎式10高3筋皮1袋

セキスル 魚草の葉より抽出し、在男性生殖腺不い  
錠剤 1錠中魚草葉丸10.0667g マル付口口口(合成) 0.000123g  
ミシホニシ末 0.0832g 日本薬局方0.02g (5鶏冠草位置前)

製法 上記四子と混和し錠剤とし糖衣を施して製す

魚草丸10.0667g 魚草丸の葉部の葉部を泥状に粉砕し、マル付口口に  
混和し、その葉部を減圧下に乾燥し、金網別状に取し有機溶媒  
を用いて再抽出し、減圧下に完全に乾燥し、溶媒を除去、真空乾燥機にて製す。

10.0667g は魚草葉丸60g に相当す

マル付口口の製法 1. マル付口口は酸性水溶液にて乾燥し、  
1-2%を用いて乾燥し、之に1-2% マル付口口を用いてグリニヤール試薬を作用  
せしめて製す。

錠剤 魚草丸と混和し、マル付口口を抽出し、減圧濃縮し、之を  
ベンゾインで再抽出し、ベンゾインと溜去後、残渣をペトニに濾し、  
ペトニの溶解部を除き、残渣にハチンを加へて、濾過し、日本薬局方

Figure 4 - Additional Sexmain Literature

P. 710



アルコールで振盪した後アルコール溶液を蒸留し残渣をエーテル  
に溶かし上エーテル溶液を苛性ソーダ溶液並に水で洗いエーテル  
を溜去し残渣をマゼラ油に溶解し濾過・硝子管0.5cc中に  
炭素用減圧し製す。

Figure 5- Additional Sexmain Literature



TRANSLATION OF INFORMATION OBTAINED FROM DIRECTOR OF  
PHARMACEUTICAL INSTITUTE OF TOKYO IMPERIAL UNIVERSITY \*\*

SEXMAIN

Male reproductive gland hormone extracted from the testicles of whales,

Tablets - 3 to 6 tablets per day.

Injection - one ampul intramuscularly daily or on alternate days.

Tablets - Each tablet is standardized at 5 hen units and contains:

Extract of whale testicles	0.0667	gm.
Methyl testosterone (synthetic)	0.000123	gm.
*Mizuhonin powder	0.0832	gm.
Talc, P.J.	0.02	gm.

Method of Manufacture:

Mix the above ingredients and make tablets. Coat with sugar.

A. 1. Preparation of extract of whale testicles.

(For tablets)

Cut the whale testicles into small pieces and soak in methanol and concentrate to a syrupy state by boiling at reduced pressure.

Re-extract using an organic solvent and remove the solvent completely at reduced pressure and dry it by vacuum. One gram of the extract corresponds to 60 gm. of testicles.

2. Preparation of Methyl Testosterone.

Place cholestrin in an aqueous solution showing an acid reaction and oxidize using sodium dichromate and allow this to react with Grignard's reagent containing methyl iodide.

B. Preparation of extract of whale testicles.

(For injection)

Pulverize the testicles, extract with methanol and concentrate at reduced pressure. Extract again with benzol and after removing the benzol by distillation dissolve the residue in acetone. Remove the acetone and dissolve the residue in hexane. After agitating this mixture with P.J. alcohol, distill the alcoholic solution and dissolve the residue in ether. Wash the ether solution with caustic soda solution and water and remove the ether by distillation. Dissolve the residue in Mazola oil and filter. Place 0.5 cc. in each ampul and sterilize.

\* Mizuhonin is a vitamin B complex extract, reported as Item No. 53 of Inventory Report No. 7, this Section, 13 March 1946.

\*\* Dr. S. Sugasawa



# TRANSLATION OF LITERATURE ACCOMPANYING SEXMAIN

## SEXMAIN

Newest Male Hormone

(Whale testicle preparation).

INGREDIENTS: The source of this preparation is the male reproductive organs of aquatic mammals (whales) which have the most vigorous energy. By a special process the maximum amount of sex regulating hormones is extracted and purified and its strength standardized by rigid biological tests.

The injection is an oil solution, each ampul containing 15 Pigeon Units according to Laqueur's method and each tablet contains 5 Pigeon Units. Furthermore, a powerful vitamin B prepared by our special process is added to the tablets increasing its effectiveness.

### EXPERIMENTAL RESULTS:

- a. When a rooster is castrated its comb gradually fades and shrinks but when Sexmain is injected its crest enlarges completely regaining its original color and the rooster grows larger than it was before castration. The lustre of the eyes and feathers increase and the rooster completely regains its cry, fighting spirit and sexual appetite.
- b. Sexmain accelerates the recovery from atrophy of seminal vesicles in mice, rabbits and dogs caused by castration and also prevents diseases of castration. In young animals it markedly hastens sexual development, thereby causing early maturity.
- c. When administered to senile animals, they regain their energy, appetite, weight, activity, sexual desire and they display a youthful phenomenon.

### INDICATIONS:

1. Neurasthenia of the reproductive organs.
  - Impotency
  - Premature emission
  - Lack of sexual desires
  - Loss of pleasant sensation
  - Spermatorrhea
  - Prostatorrhea



2. Male illness at beginning of old age
  - Headache
  - Exhaustion
  - Amblyopia
  - Decline in hearing
  - Decline in energy
  - Stiff shoulders
  - Lumbago
  - Cold sensation in extremities
  - Middle age melancholy
3. Prevention and recovery of general senility in men.
4. Undescended testicles.
  - Congenital partial development of the testicles.
  - That is, similar to emasculated males and physical and mental obstruction after castration.
5. Male obesity.
6. General male exhaustion.

DIRECTIONS AND DOSAGE:

Injection: One ampul intramuscularly or subcutaneously daily  
or on alternate days.

Tablets: 3 to 6 tablets per day.

If injection is administered simultaneously the action is more marked. When injections are given continuously the area of injection should be changed. It is preferable to inject comparatively deeper.

PACKAGE:

Injection: 0.5 cc. - 5 Ampuls  
0.5 cc. - 10 Ampuls  
0.5 cc. - 50 Ampuls

Tablets: 30 Tablets  
100 Tablets  
500 Tablets

MANUFACTURER AND SELLER:

Dai Nippon Pharmaceutical Co., Ltd.  
25-3-Chome, Doshu Cho, Higashi-Ku, Osaka

Branch Office: 2-Chome, Honcho, Nihonbashi-Ku, Tokyo  
35 Naniwa Dori, Yamato-Ku, Hoten

Dispatch Office: 3 Chome, Sakoe Cho, Taihoku  
8 Chome, Minami Sanjo Nishe, Sapporo